

Amendments to the Claims

The following listing of claims replaces all prior versions and listings of the claims in this application.

Listing of Claims

1. (Currently amended) An amino acid sequence being able to facilitate penetration of a substance of interest inside cells and/or cell nuclei and having one of the following formula: Leu Arg Arg Glu Arg Gln Ser Arg Leu Arg Arg Glu Arg Gln Ser Arg (SEQ ID NO.1) - Gly Ala Tyr Asp Leu Arg Arg Arg Glu Arg Gln Ser Arg Leu Arg Arg Arg Glu Arg Gln Ser Arg (SEQ ID NO.2) $-(X_1)_p-(X)_n-(B)_n-X-B-X-X-B_1m-(X_2)_q-(I)$ wherein X_1 and X_2 are amino acid sequences of 1 to 20 amino-acids; p and q are whole numbers between 0 and 5; B is a basic amino acid; X is a non-basic, preferably hydrophobic amino acid, such as alanine, isoleucine, leucine, methionine, phenylalanine, tryptophan, valine or tyrosine; n is 2 or 3; m is 1 to 4; o is 0 or 1.

Claims 2-18. (Cancelled)

19. (Currently amended) The combination of an amino acid sequence according to claim any one of claims 1 to 18 with a substance of interest.

20. (Currently amended) ~~The use of an amino acid sequence according to any one of claims 1 to 18 to prepare a composition~~ A method of preparing a composition for the transfer of a substance of interest into cells, comprising combining the amino acid sequence of claim 1 with a substance of interest to produce said composition.

21. (Currently amended) A vector for intracytoplasmic and/or intracytosolic and/or intranuclear *in vivo* transfer of a substance of interest, constituted by or comprising at least one amino acid sequence according to claim any of claims 1 to 18.

22. (Original) The vector of claim 21 coupled to at least one substance of interest that can be incorporated naturally or non-naturally into cells and/or the nuclei of said cells.

23. (Original) The vector of claim 22, wherein said substance of interest is coupled at N or C terminal end of the amino acid sequence.

24. (Original) A vector according to any of claims 21 to 23, wherein the substance of interest is chosen from the group comprising nucleic acid, protein, drug, antigen, antibody, polymer, marker such as fluorochrome.

25. (Currently amended) A vector according to any of claims 21 to 23 [[24]], wherein the substance(s) of interest is (are) coupled to said vector via at least one anchoring molecule having a strong natural affinity for said substance of interest.

26. (Currently amended) A vector according to any of claims 21 to 23 [[24]], wherein the substance(s) of interest is (are) coupled to said vector by genetic engineering or by chemical, biochemical, enzymatic coupling.

27. (Currently amended) An eukaryotic cell containing an amino acid sequence according to claim ~~any one of claims 1 to 18~~ or a vector according to any of claims 21 to 23 [[26]].

28. (Currently amended) A biological, pharmaceutical, cosmetic, agro-food, diagnostic or tracking composition, comprising as active ingredient an amino sequence according to claim ~~any of claims 1 to 18, or~~ a vector according to any of claims 21 to 23 [[26]] ~~or an eukaryotic cell according to claim 27.~~

29. (New) A biological, pharmaceutical, cosmetic, agro-food, diagnostic or tracking composition, comprising as active ingredient a eukaryotic cell according to claim 27.